Gamification as Motivation to Engage in location-based Public Participation?

Sarah-Kristin Thiel, Peter Fröhlich

Public Participation

Public Participation

Public Participation

Public e-Participation

BÜRGERVISION

IDEEN

PROJEKTE

COMMUNITY

Starte deine Idee

STADTMACHER: VON IDEEN ZU PROJEKTEN

BetriReykjavik

STADA HUGMYNDA

Skógrækt í fossvogsdal

Setja upp falleg vatnslistaverk á torg og í garða

VILJANDI Maja

UUDISED JA TEATED

VILJANDI LINNA KONTAKTID

Request Bike Parking

Tell us where you need bike parking.

Request Bike Parking

direktzu

Dr. Angela Merkel

Ihr Anliegen

Lesen und Abstimmen

WhatDoTheyKnow

Get answers from the government and public sector

Browse 332,886 requests to 17,071 authorities

How it works

Bürgerhaushalt Lichtenberg

Wir rechnen mit Ihnen

Parkvignette statt Parkplatznot?

Vorschlag einreichen   Vorschläge ansehen

Verbeterdebuurt

Amsterdam Centrum (Amsterdam)

Welkom bij Verbeterdebuurt!

nextsuisse

Diskutiere mit – Nextsuisse Zukunftsatlas erschienen!

How would you spend SF's transportation dollars?
Be the City's Budget Czar for a Day!

$64.30
$54.85

Operations and Maintenance

what matters for HEALTH

Your Community. Your Future. Your Move.

WHAT MATTERS FOR HEALTH
Boston, Massachusetts.

Healthy Neighborhoods = Healthy People

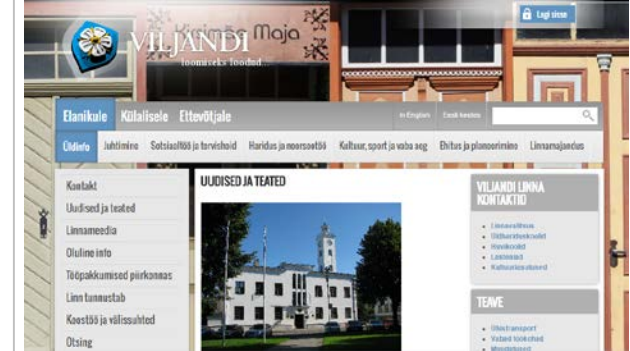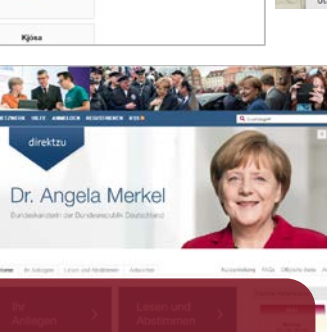NYC   Vision Zero

VISION ZERO

Law Enforcement   Legislation   Street Design   Public Dialogue

Zoom in and select an intersection.

Not enough time to cross
Double parking
Long wait to cross
Red light running
Jaywalking
Poor visibility
Speeding
Long distance to cross
Failure to yield to pedestrians
Cyclist behavior

DEBATE

EL PROJECTE   ENTREPRENEURSHIP   MARKETING   DEV & DESIGN
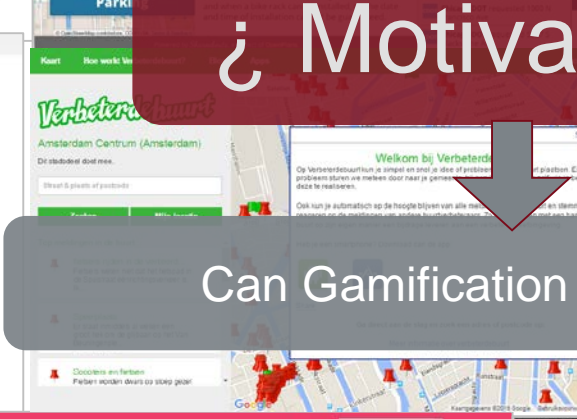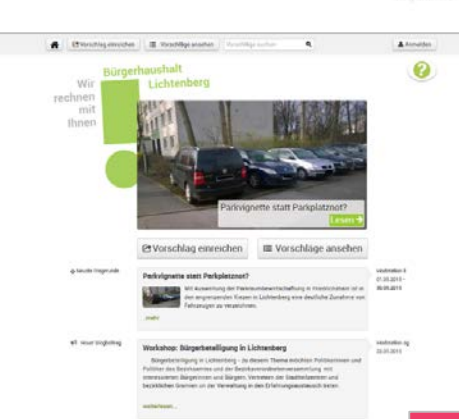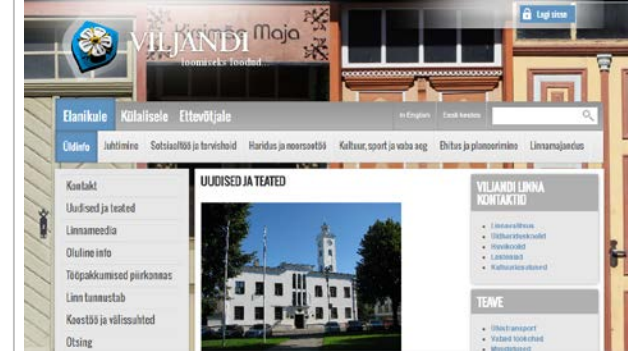
¿ Motivation ?

¿ Motivation ?

Can Gamification be the solution?

Field study 1
Game trial

- Volunteer sampling
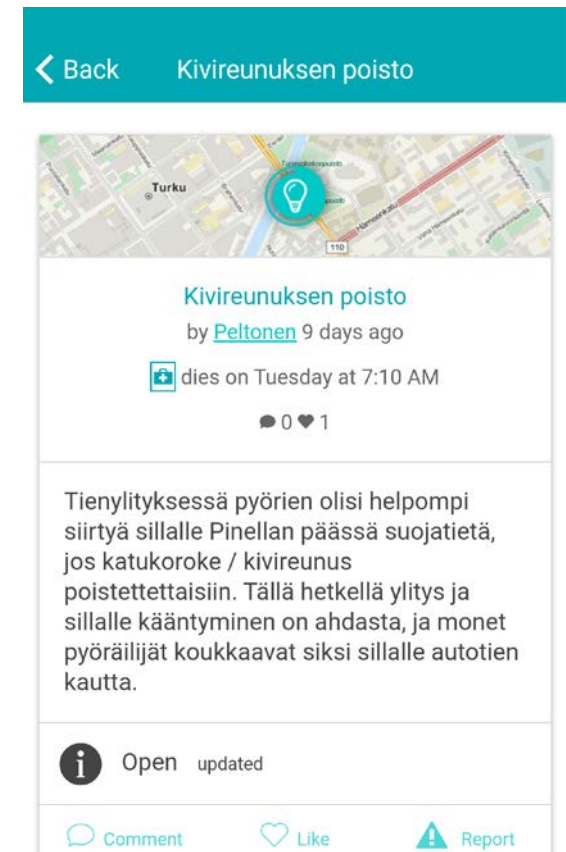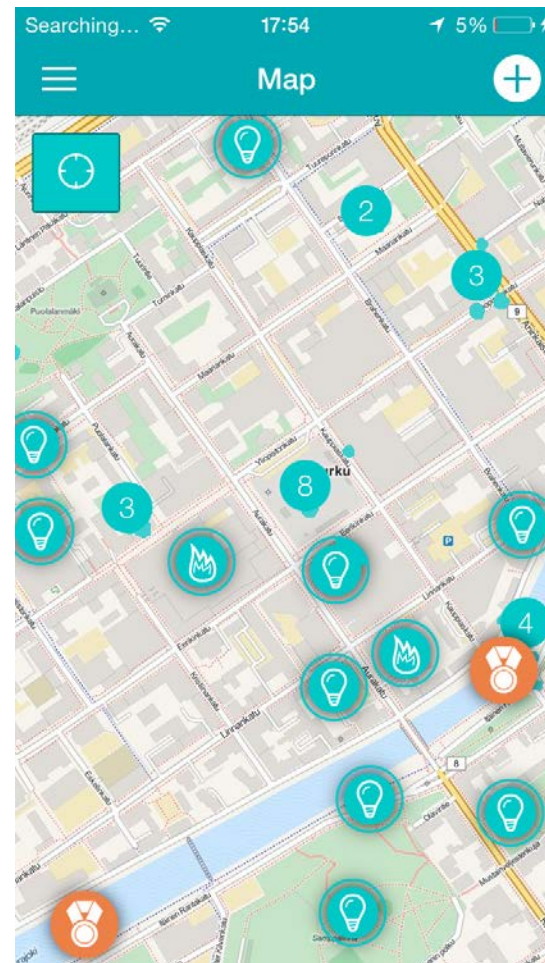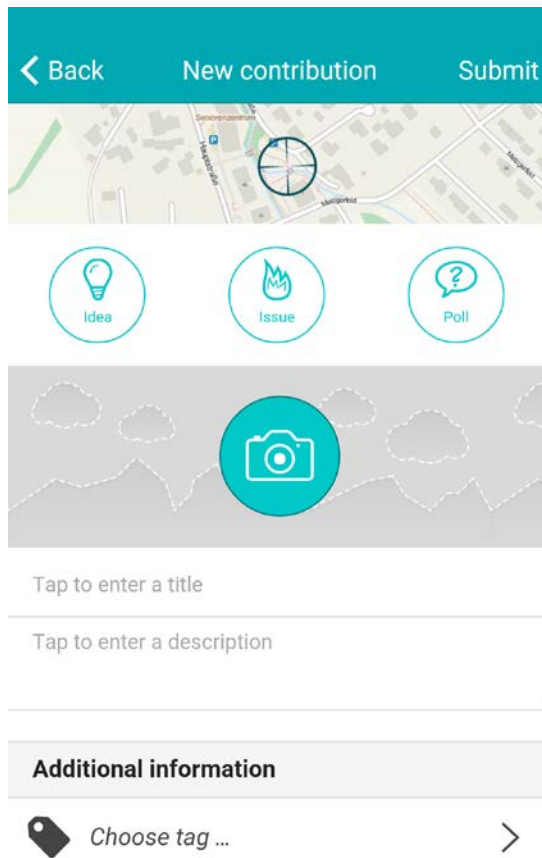- 9 participants (3f, 6m)

- Time frame: late summer

Field study 2
Non-Game trial

- Volunteer sampling
- 11 participants (5f, 6m)

- Time frame: late winter

The prototype

Some Screenshots
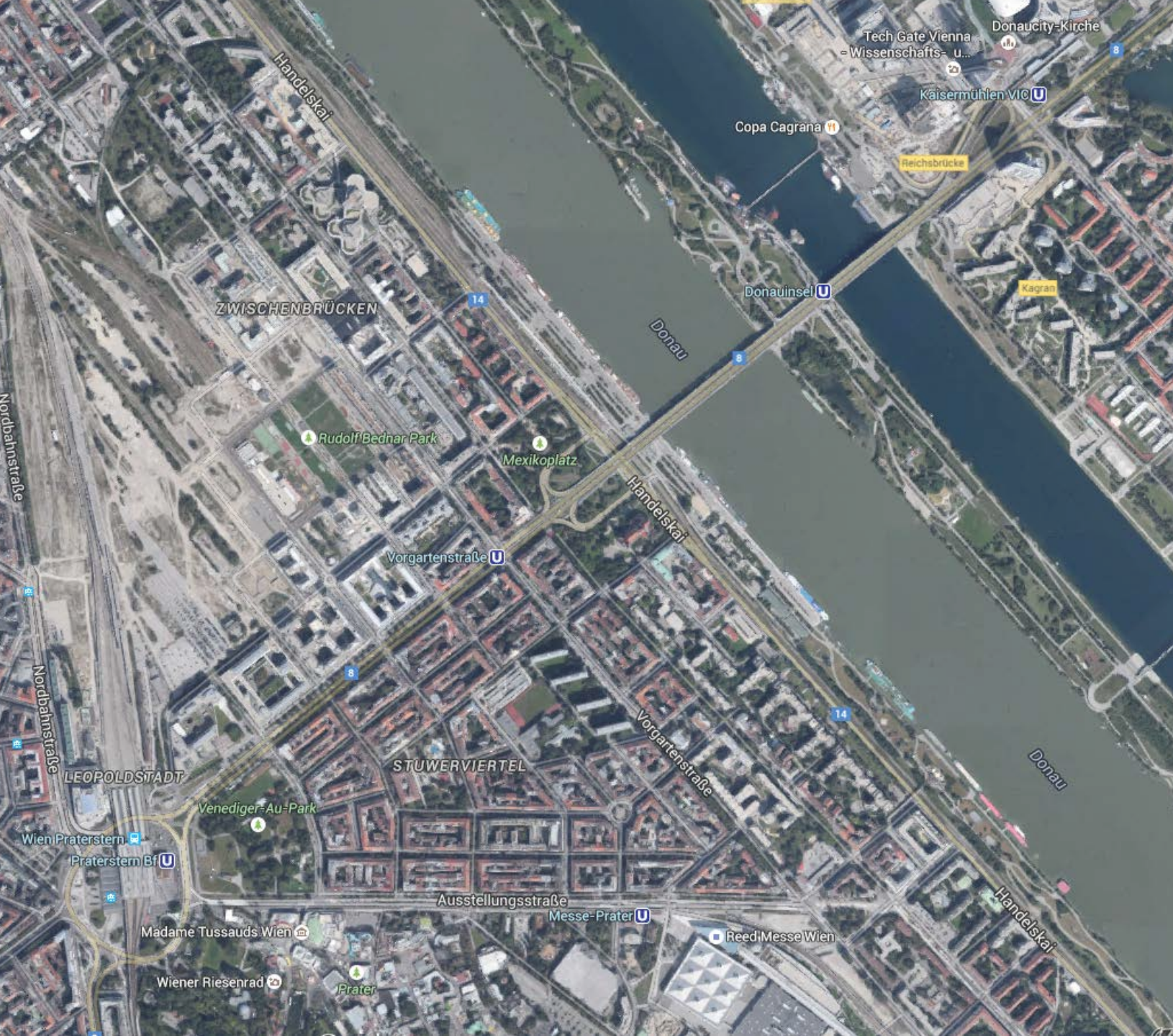
Study setup
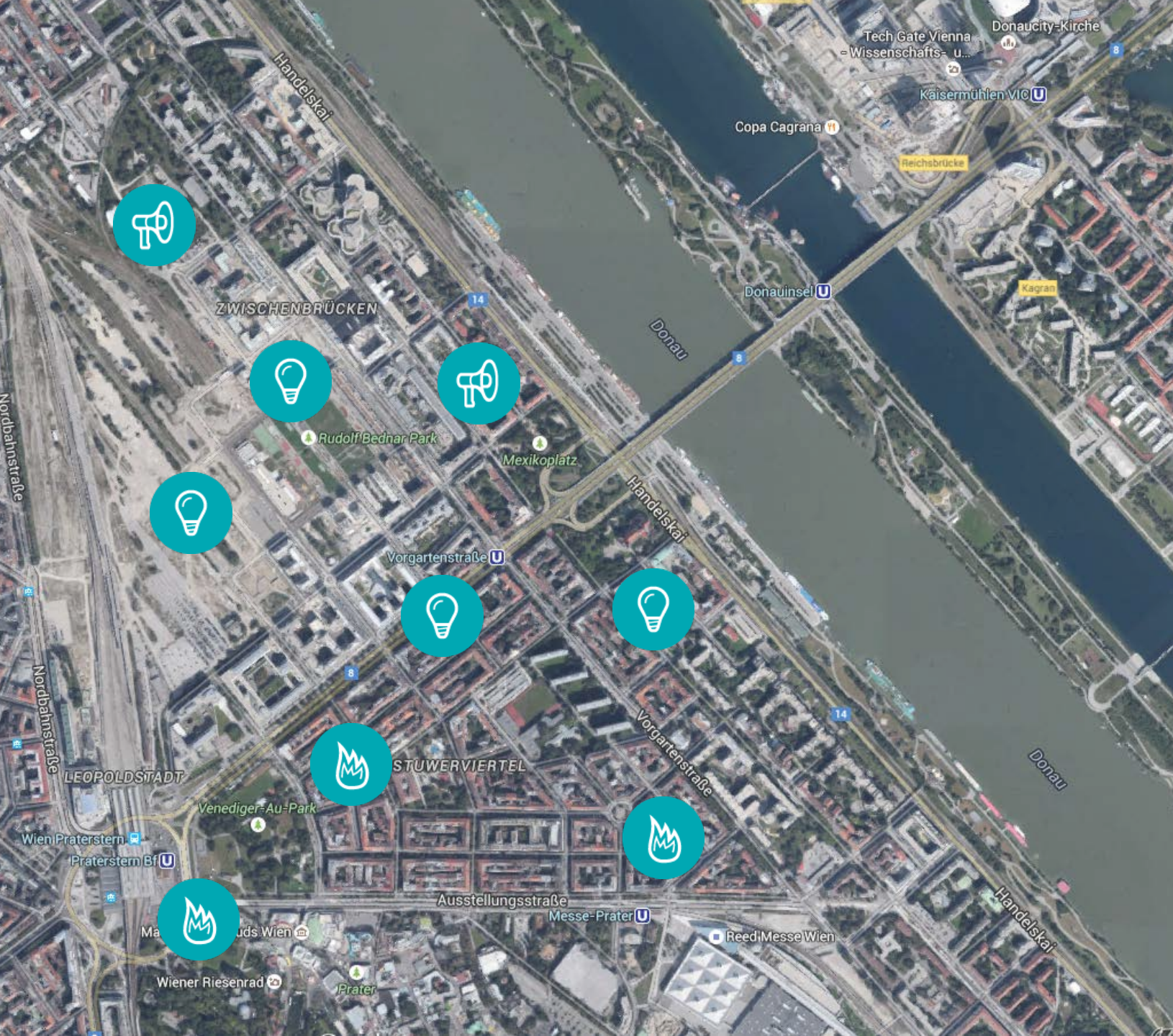
Study setup

Game Elements

Social
interaction

Challenge

Time constraint

Point system

Competition

Progress

Discovery

Game Elements

Non-Game trial

~~Social interaction~~

~~Challenge~~

Time constraint

~~Point system~~

~~Competition~~

~~Progress~~

Discovery
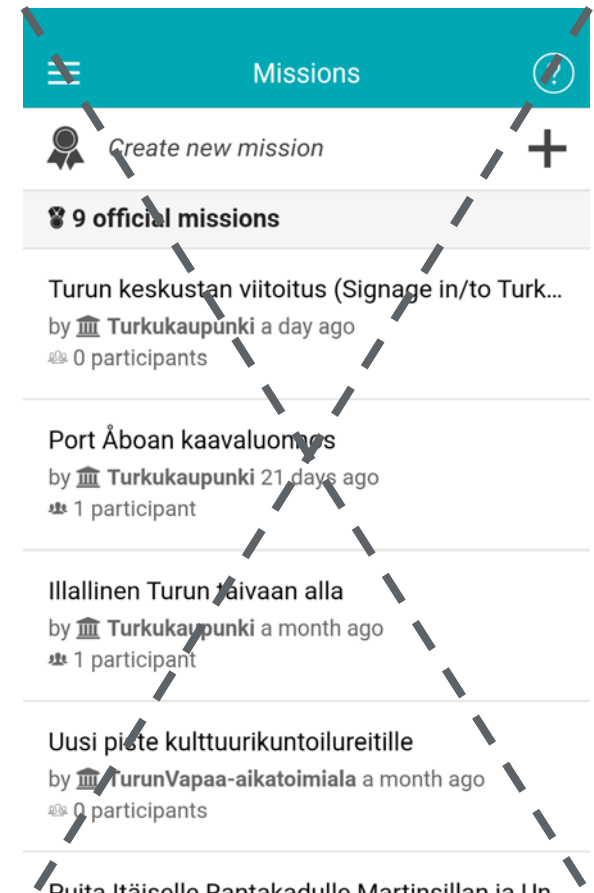
Method, Data, Results

Analysing participation & motivation

Mapping of Motivations

Intrinsic

- „for the sake of it"

Extrinsic

- For external outcomes

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Intrinsic

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Extrinsic

- For external outcomes

Intrinsic	Social	"Socializing"
	Pleasure	"It was fun"
	Learning	"Discussing relevant issues"
Extrinsic	Reputation	"Making others aware of a problem"
	Institutional	"I believe my post has an impact"
	Personal	"Voicing my opinion"
	Gaming	"I wanted to succeed in the game"

Table 2. Framework for assessing motivational factors; survey items in third column.

Results

Motivations

		Game trial	Non-Game trial
Intrinsic	Social	2.11 (0.78)	2.64 (1.21)
	Pleasure	2.89 (1.05)	4.45 (0.69)
	Learning	3.78 (0.67)	3.64 (0.92)
Extrinsic	Reputation	4.33 (0.71)	4.00 (0.89)
	Institutional	3.56 (0.88)	3.82 (0.98)
	Personal	4.22 (0.83)	4.00 (1.1)
	Gaming	1.44 (0.73)	/

Results > Motivations

Game trial

- Lower intrinsic motivation
- Pleasure significantly less relevant
- Most relevant: reputation & personal

- Succeeding in the game was not relevant for participants

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Non-Game trial

- Lower intrinsic motivation
- Pleasure most important aspect
- Most relevant: pleasure, personal, reputation

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- Pleasure most important aspect
- Most relevant: pleasure, personal, reputation

Overall

- Compared with Game trial, higher intrinsic motivation in the Non-Game trial

- Socializing least important factor

Level of participation

Participation

= quantity of involvement

Engagement

= quality of involvement

Level of participation

Participation

= quantity of involvement

Engagement

= quality of involvement

Which motivations influence participation?

Levels of participation

Activity count (AC)

- Number of contributions & comments posted per user
- Excluding likes

$$AC = \text{✏️} + \text{💬} \quad \text{👍✗}$$

Results > Levels of participation

Activity count (AC)

 +

Game trial

- AC total: 138 *
- AC Av: 17.3

Non-Game trial

- AC total: 97
- AC Av: 8.8

Results > Levels of participation

Activity count (AC)

Game trial

- AC total: 138 *
- AC Av: 17.3

Non-Game trial

- AC total: 97
- AC Av: 8.8

➢ Gamification significantly increased participation

Which motivation influences participation?

- Does any (single) motivation predict the AC?

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★ Non-Game trial

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Which motivation influences participation?

★ Non-Game trial
★ Game trial

	Game trial	Non-Game trial
Intrinsic	★	
Extrinsic		

Do motivators influence other motivators?

⭐ Non-Game trial

⭐ Game trial

	Social	Pleasure	Learning	Reputation	Institutional	Personal
Social						★
Pleasure						
Learning						
Reputation						★
Institutional						★
Personal						

Summary

- Strongest motivations
    - Making others aware of issues/ideas
    - Voicing one's opinion

    - Having one's voice heard most important in e-participation

- Gamification increased participation
    - Gaming was not particularly relevant
    - Intrinsic motivators influenced participation
    - Intrinsic motivation was higher in the Non-Game trial

Take home messages

➢ Gamification can increase level of participation.

➢ Fun can not only derived from gaming (= game elements), but also when engaging in public participation.

➢ Intrinsic motivation important for level of participation.

Take home messages

➢ Gamification can increase level of participation with content maintaining its relevance.

➢ Fun can not only derived from gaming (= game elements), but also when engaging in public participation.

➢ Intrinsic motivation important for level of participation

While game aspects were not important for motivation, they did lead to higher participation.

Thanks for listening!

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🐦 @erdbeersarah